

Appl. No. 10/661,652  
Reply to Office action of January 11, 2005  
Docket. No.: 022.0008 (1630)

### REMARKS

In the January 11, 2005 Office Action, claims 1-44 were rejected. This Response amends claims 1, 6-7, 9-13, 21, 31-32, 34-35, 41 and 43. After entry of the foregoing amendments, claims 1-44 (44 total claims; 4 independent claims) remain pending in the application. Reconsideration of the application is respectfully requested in view of the above amendments and the following remarks.

#### I. CLAIM OBJECTIONS

Claims 11 and 12 were objected to because of incorrect dependency.

Applicant appreciates the Examiner's suggested changes to these claims. Applicant has amended claim 11 to now depend on claim 10 and has amended claim 12 to now depend on claim 11. Accordingly, reconsideration and withdrawal of this objection is respectfully requested.

#### II. CLAIM REJECTION UNDER 35 U.S.C. § 112

Claims 1-44 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the application regards as the invention.

A. The Office Action stated that "Claims 1, 21, 41 and 43 recite "a first parasitic element separated from said driven" which found no support in the disclosure."

Applicant appreciates the Examiner's suggested changes to the claims. Applicant has amended claims 1, 21, 41 and 43 to recite "a first parasitic element separated from said driven".

Appl. No. 10/661,652  
Reply to Office action of January 11, 2005  
Docket. No.: 022.0008 (1630)

Accordingly, reconsideration and withdrawal of this rejection of claims 1, 21, 41 and 43 under 35 U.S.C. 112 is respectfully requested.

B. The Office Action stated that in "claims 6-7, 9-10, 13, 31-32 and 34-35, "the second parasitic element" has no antecedent basis since there is no second parasitic element previously recited in independent claims 1 and 21."

Applicant has amended claims 6-7, 9-10 and 13 to depend from claim 5, in which the second parasitic element is recited, and amended claims 31-32 and 34-35 to depend from claim 30, in which the second parasitic element is recited. Accordingly, reconsideration and withdrawal of this rejection of claims 6-7, 9-10, 13, 31-32 and 34-35 under 35 U.S.C. 112 is respectfully requested.

C. The Office stated that "claims 2-5, 8, 11-12, 14-20, 22-30, 33, 36-40, 42 and 44 are rejected because of their dependencies."

Claims 2-5, 8, 11-12, 14-20, 22-30, 33, 36-40, 42 and 44 depend from one or more of amended claims 1, 6-7, 9-10, 13, 21, 31-32, 34-35, 41 and 43, and thus the arguments presented above also apply to these dependent claims. Accordingly, reconsideration and withdrawal of this rejection of claims 2-5, 8, 11-12, 14-20, 22-30, 33, 36-40, 42 and 44 under 35 U.S.C. 112 is respectfully requested.

### III. CLAIM REJECTION UNDER 35 U.S.C. § 102

Claims 1-9 and 16 were rejected under 35 U.S.C. 102(b) as being anticipated by Huang (USP 5,220,335 of record). Applicant respectfully traverses this rejection.

Appl. No. 10/661,652  
Reply to Office action of January 11, 2005  
Docket. No.: 022.0008 (1630)

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Office Action states that Huang discloses a driven element (12) and a first parasitic element (14) separated from said driven element, wherein at least one of said first parasitic element and said driven element have a width that is greater than about one-half a percent (0.5%) of a free-space wavelength of the directional antenna array (col. 4, lines 34-43, or col. 5, lines 3-13).

Applicant respectfully submits that the prior art reference does not teach each and every element of the claims.

In regard to claim 1, the claim requires "at least one of said first parasitic element and said driven element have a width that is greater than about one-half a percent (0.5%) of an free-space wavelength of the directional antenna array." (emphasis added)

Nowhere in Huang is it disclosed that the width of the first parasitic element or the driven element is related to free space wavelength, as required by claim 1. Instead, Huang discloses that the distance between the centers of parasitic reflector patch 14 and driven element 12 should be on the order of 0.35 free space wavelength. (Huang, col. 4, lines 34-36).

Accordingly, Huang fails to disclose that the width of either the first parasitic element or the driven element is greater than about one-half a percent (0.5%) of a free-space wavelength, as required by claim 1.

Claims 2-9 and 16 depend from claim 1, and thus the arguments presented above also apply to these dependent claims.

Appl. No. 10/661,652  
Reply to Office action of January 11, 2005  
Docket. No.: 022.0008 (1630)

Accordingly, for at least the reasons stated above, reconsideration and withdrawal of the rejection of independent claim 1, along with dependent claims 2-9 and 16 under 35 U.S.C. 102(b) is respectfully requested.

#### IV. CLAIM REJECTION UNDER 35 U.S.C. § 103

##### A. Huang in view of Woodward

Claims 10-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of Woodward (US 2003/0123725 A1). Applicant respectfully traverses this rejection.

Claims 10-12 depend from claim 1, and thus the arguments presented above also apply to these dependent claims. Accordingly, reconsideration and withdrawal of this rejection under 35 U.S.C. 103 is respectfully requested.

##### B. Huang in view of Chen

Claims 10-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of Chen et al (USP 6,809,699). Applicant respectfully traverses this rejection.

Claim 13 depends from claim 1, and thus the arguments presented above also apply to this dependent claim. Accordingly, reconsideration and withdrawal of this rejection under 35 U.S.C. 103 is respectfully requested.

##### C. Huang in view of MacDonald

Claims 14-15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of MacDonald, Jr et al (USP 6,061,036). Applicant respectfully traverses this rejection.

Claims 14-15 depend from claim 1, and thus the arguments presented above also apply to these dependent claims. Accordingly, reconsideration and withdrawal of this rejection under 35 U.S.C. 103 is respectfully requested.

Appl. No. 10/661,652  
Reply to Office action of January 11, 2005  
Docket. No.: 022.0008 (1630)

D. Huang in view of Lanzl

Claims 41-42 were rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of Lanzl et al (USP 6,353,406). Applicant respectfully traverses this rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify a reference or to combine the teachings of multiple references. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all of the recited claim limitations. Of course, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. Applicants submit that all of the criteria have not been met in this case.

The Office Action states that Huang discloses an antenna array 10 having a driven element (12) and a first parasitic element (14) separated from said driven element, wherein at least one of said first parasitic element and said driven element have a width that is greater than about one-half a percent (0.5%) of a free-space wavelength of the directional antenna array (col. 4, lines 34-43).

Applicant respectfully submits that the prior art references, or combination of references, do not teach or suggest all of the claim limitations of the amended claims.

In regard to claim 41, the claim requires "at least one of said first parasitic element and said driven element have a width that is greater than about one-half a percent (0.5%) of an free-space wavelength of the directional antenna array." (emphasis added)

Nowhere in Huang is it disclosed that the width of the first parasitic element or the driven element is related to free space wavelength, as required by claim 41. Instead, Huang

Appl. No. 10/661,652  
Reply to Office action of January 11, 2005  
Docket. No.: 022.0008 (1630)

discloses that the distance between the centers of parasitic reflector patch 14 and driven element 12 should be on the order of 0.35 free space wavelength. (Huang, col. 4, lines 34-36).

Moreover, Lanzl does not make up for the deficiencies of Huang. Lanzl does not disclose that the width of the first parasitic element or the driven element is related to free space wavelength.

Claim 42 depends from claim 41, and thus the arguments presented above also apply to this dependent claim.

Accordingly, for at least the reasons stated above, reconsideration and withdrawal of the rejection of independent claim 11, along with dependent claim 42 under 35 U.S.C. 102(b) is respectfully requested.

#### V. ALLOWABLE SUBJECT MATTER

##### A. Claims 17-20

The Office Action states the claim 17-20 would be allowable if rewritten in independent form and rewritten to overcome the 112 rejection.

Claims 17-20 ultimately depend on claim 1, which Applicant has amended to overcome the 112 rejection. Applicant appreciates this indication of allowability of claims 17-20 if rewritten in independent form, but declines to do so at this time. Applicant has shown above that claim 1 is allowable over the prior art and for those same reasons claims 17-20 should also be allowable over the prior art.

##### B. Claims 21-40 and 43-44

The Office Action states the claim 21-40 and 43-44 would be allowable if rewritten to overcome the 112 rejection.

Appl. No. 10/661,652  
Reply to Office action of January 11, 2005  
Docket. No.: 022.0008 (1630)

Applicant appreciates this indication of allowability of claims 21-40 and 43-44 if rewritten. Applicant has amended claims 21, 31-32, 34-35 and 43 to overcome the 112 rejection. Claims 22-40 depend on amended claim 21 and claim 44 depends on amended claim 43. Claim 21-40 and 43-44 should now be allowable.


### CONCLUSION

In view of Applicants' amendments and remarks, it is respectfully submitted that the Examiner's objections and rejections under 35 USC § 102, 103 and 112, have been overcome. Accordingly, Applicants respectfully submit that the application is in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the Applicants' attorneys at the telephone number below.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,  
INGRASSIA FISHER & LORENZ

Dated: April 11, 2005

By:   
Michael R. Shevlin  
Reg. No. 38,724  
(480) 385-5060